

COUNTER FLOW HEAT EXCHANGERS
CONVENTIONAL VS ENHANCED DESIGNS

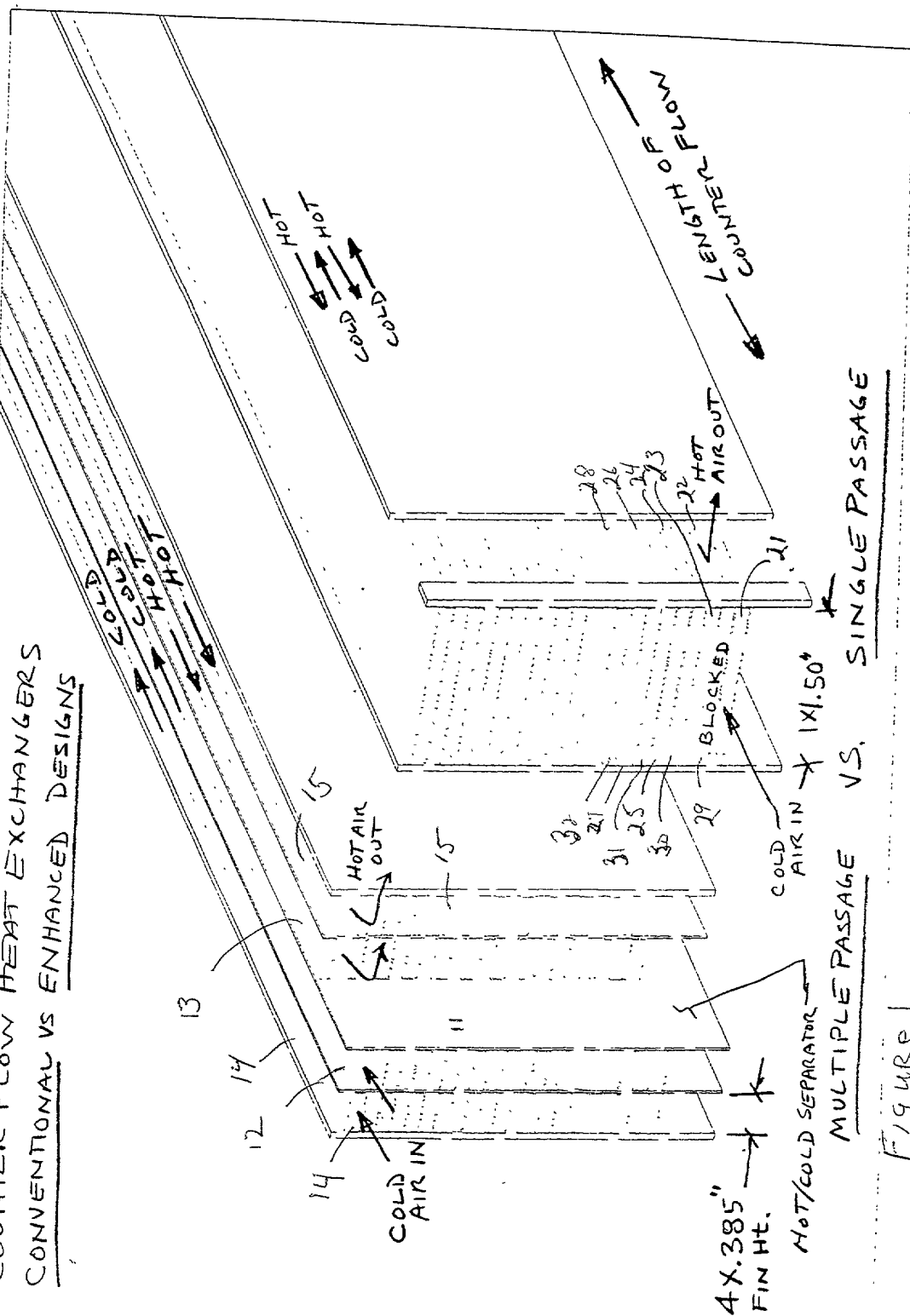
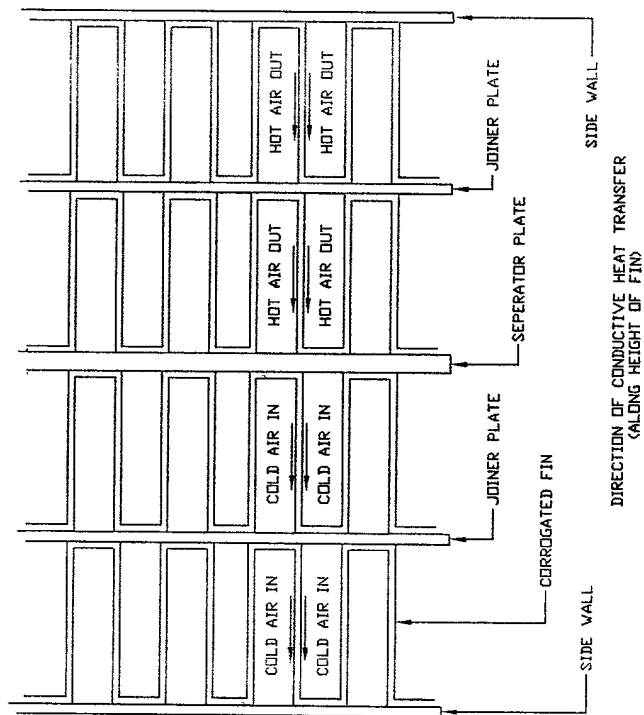


Figure 1

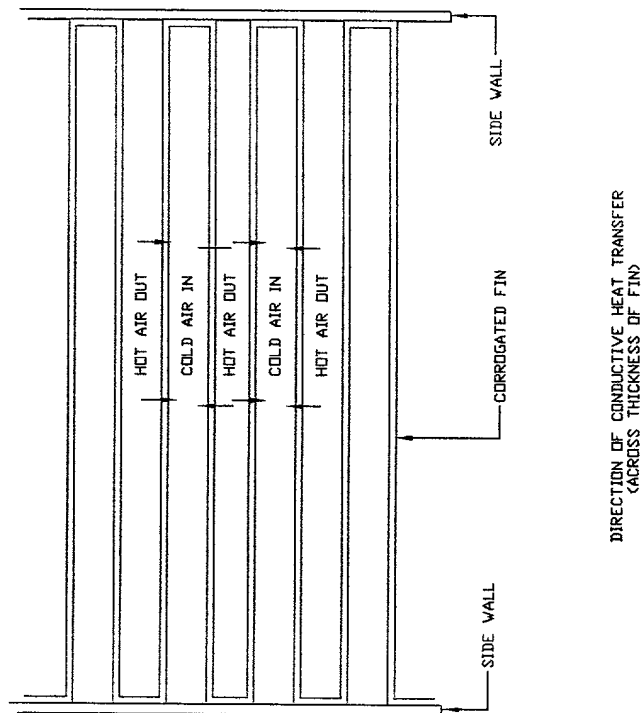
FIGURE 2

Figure 3



CROSS SECTION OF PRIOR ART, MULTI-STAGE COUNTERFLOW HEAT EXCHANGER

Figure 4



CROSS SECTION OF PRESENT INVENTION, SINGLE-STAGE COUNTERFLOW HEAT EXCHANGER

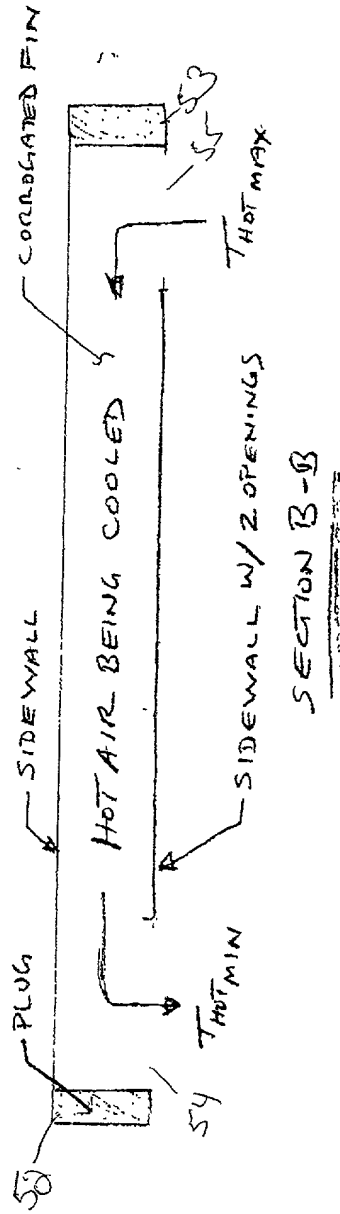
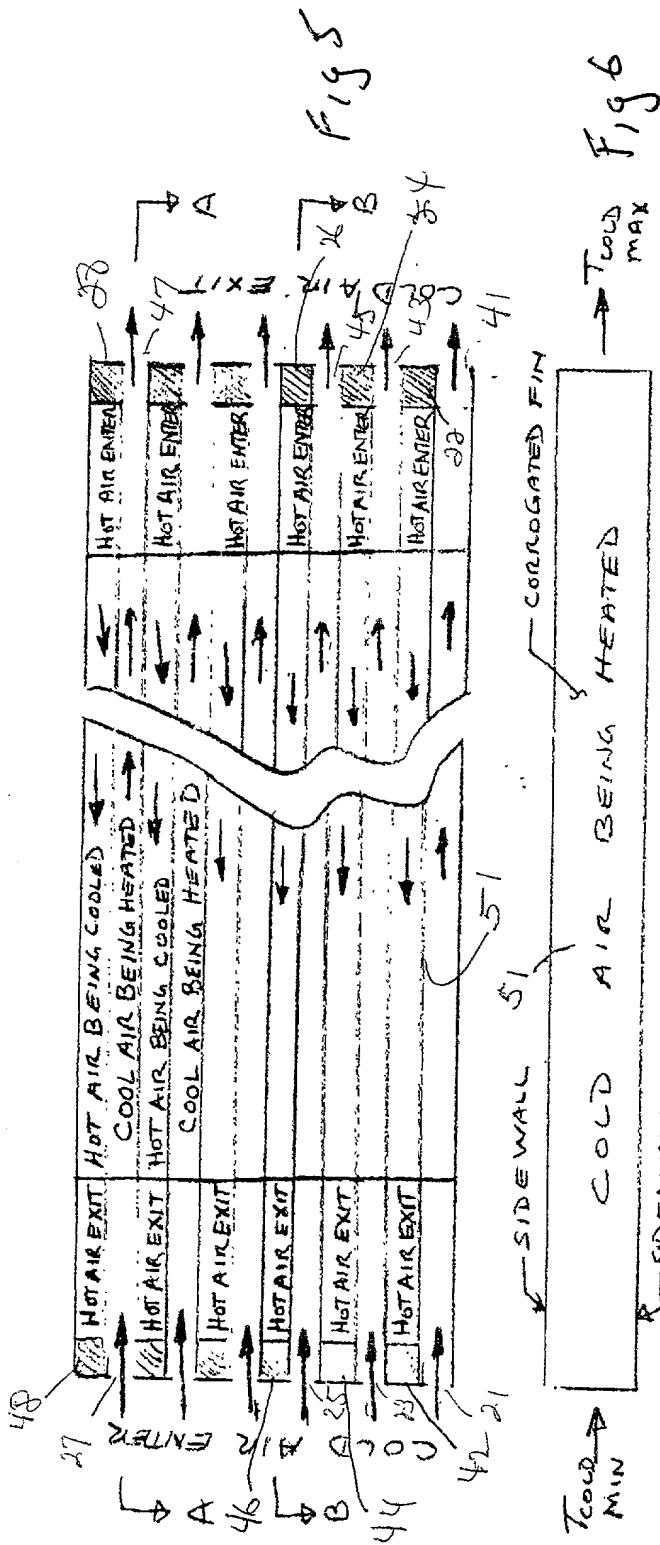
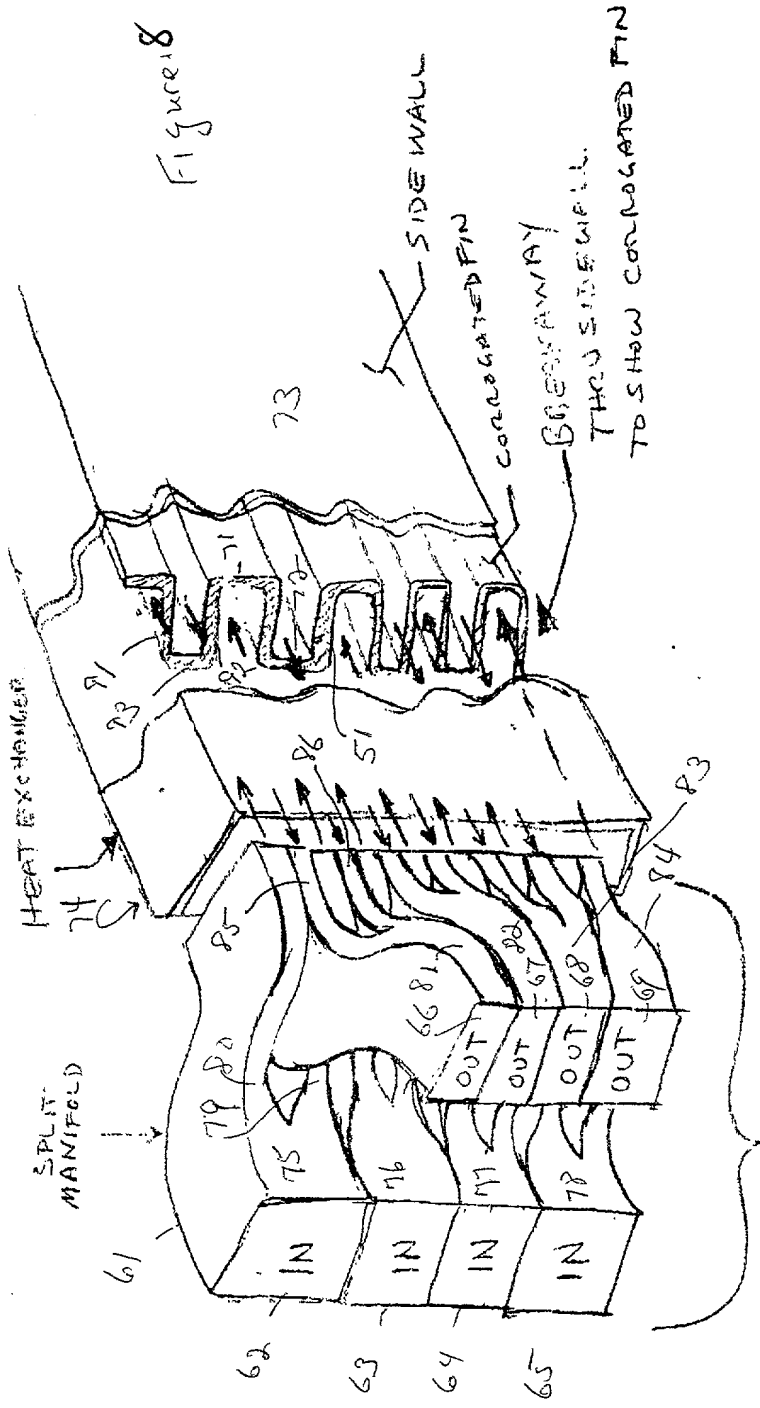


Figure 1



SPLIT MANIFOLD EXAMPLE -
 USED TO SEPERATE COUNTER - FLOW
 WITHOUT USING PLUGS & SIDE WALL GAPS
 (THIS METHOD ELIMINATES REDIRECTING AIR FLOW
 WITHIN CORRUGATED FIN LENGTH)